

From: Richard Fetzer/R3/USEPA/US
Sent: 3/27/2012 8:36:37 AM

To: "heston.gerald@epa.gov" <heston.gerald@epa.gov>; "carney.dennis@epa.gov" <carney.dennis@epa.gov>;
"Ron Borsellino" <Borsellino.Ron@epamail.epa.gov>
CC:
Subject: Fw: PADEP State Drinking Water Standard

Confirmed. FYI.

Richard M. Fetzer
Federal On-Scene Coordinator
100 Gypsum Road
Stroudsburg, PA 18360
(215) 341-6307

----- Forwarded by Richard Fetzer/R3/USEPA/US on 03/27/2012 08:35 AM -----

From: "Brokenshire, Stephen" <sbrokenshi@pa.gov>
To: Richard Fetzer/R3/USEPA/US@EPA
Date: 03/27/2012 08:33 AM
Subject: RE: PADEP State Drinking Water Standard

Rich,

Yes, Cabot & PA DEP tested for dissolved Methane.

Thank you,

Stephen D. Brokenshire | Mineral Resources Program Specialist |
Pennsylvania Department of Environmental Protection |
Office of Oil & Gas Management |
Division of Resource Management & Well Development |
101 Penn Avenue |
Scranton, PA 18503 |
Office (570) 346-5535 |
sbrokenshi@pa.gov
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From: Richard Fetzer [mailto:Fetzer.Richard@epamail.epa.gov]
Sent: Monday, March 26, 2012 6:00 PM
To: Brokenshire, Stephen
Subject: RE: PADEP State Drinking Water Standard

Steve,

Thanks again for this information. It was very helpful. I was also asked whether you and Cabot analyzed for dissolved methane when you split samples with us.

Please let me know.

Rich

Richard M. Fetzer

Federal On-Scene Coordinator
100 Gypsum Road
Stroudsburg, PA 18360
(215) 341-6307

From: "Brokenshire, Stephen" <sbrokenshi@pa.gov>
To: Richard Fetzer/R3/USEPA/US@EPA
Date: 03/23/2012 03:09 PM
Subject: RE: PADEP State Drinking Water Standard

Rich,

That is correct, we do not have a drinking water standard for Methane since it is not considered toxic in water. For health and safety reasons, we do have gas migration response numbers in our regulations. For drinking water it is 7 mg/L. They are cited in PA CODE Title 25 Chapter 78 section 89.

If you should have any questions regarding the contents of this e-mail. Feel free to call me on my cell phone Ex. 6 - Personal Privacy

Thank you,

Stephen D. Brokenshire | Mineral Resources Program Specialist |
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§ 78.89. Gas migration response.

(a) When an operator or owner is notified of or otherwise made aware of a potential natural gas migration incident, the operator shall immediately conduct an investigation of the incident. The purpose of the investigation is to determine the nature of the incident, assess the potential for hazards to public health and safety, and mitigate any hazard posed by the concentrations of stray natural gas.

(b) The investigation undertaken by the operator under subsection (a) must include, but not be limited to, the following:

(1) A site visit and interview with the complainant to obtain information about the complaint and to assess the reported natural gas migration incident.

(2) A field survey to assess the presence and concentrations of natural gas and aerial extent of the stray natural gas.

(3) If necessary, establishment of monitoring locations at potential sources, in potentially impacted structures, and the subsurface.

(c) If combustible gas is detected inside a building or structure at concentrations equal to or greater than 10% of the L.E.L., the operator shall do the following:

(1) Immediately notify the Department, local emergency response agency, gas and electric utility companies, police and fire departments and, in conjunction with the Department and local emergency response agencies, take measures necessary to ensure public health and safety.

(2) Initiate mitigation measures necessary to control and prevent further migration.

(3) Implement the additional investigation and mitigation measures as provided in subsection (c)(1)—(5).

(d) The operator shall notify the Department and, in conjunction with the Department, take measures necessary to ensure public health and safety, if sustained detectable concentrations of combustible gas satisfy any of the following:

- (1) Greater than 1% and less than 10% of the L.E.L., in a building or structure.
- (2) Equal to or greater than 25% of the L.E.L. in a water well head space.
- (3) Detectable in the soils.
- (4) Equal to or greater than 7 mg/l dissolved methane in water.

(e) The Department may require the operator to take the following additional actions:

(1) Conduct a field survey to assess the presence and concentrations of combustible gas and the areal extent of the combustible gas in the soils, surface water bodies, water wells, and other potential migration pathways.

(2) Collect gas or water, or both, samples at a minimum for molecular and stable carbon and hydrogen isotope analyses from the impacted locations such as water wells, and from potential sources of the migration such as gas wells.

(3) Conduct an immediate evaluation of the operator's adjacent oil or gas wells to determine well cement and casing integrity and to evaluate the potential mechanism of migration. This evaluation may include assessing pressures for all casing intervals, reviewing records for indications of defective casing or cement, application of cement bond logs, ultrasonic imaging tools, geophysical logs, and other mechanical integrity tests as required. The initial area of assessment must include wells within a radius of 2,500 feet and may be expanded if required by the Department.

(4) Take action to correct any defect in the oil and gas wells to mitigate the stray gas incident.

(5) Establish monitoring locations and monitoring frequency in consultation with the Department at potential sources, in potentially impacted structures, and the subsurface.

(f) If concentrations of stray natural gas as defined in subsection (c) or (d) are not detected, the operator shall notify the Department, and do the following if requested by the Department:

- (1) Conduct additional monitoring.
- (2) Document findings.
- (3) Submit a closure report.

(g) If concentrations of stray natural gas are detected inside a building or structure at concentrations equal to or greater than 10% of the L.E.L., the operator and owner shall file a report with the Department by phone and email within 24 hours after the interview with the complainant and field survey of the extent of stray natural gas. Additional daily or weekly reports shall be submitted if requested by the Department.

(h) For all stray natural gas migration incidents, a final written report documenting the results of the investigation shall be submitted to the Department for approval within 30 days of the close of the incident, or in a time frame otherwise approved by the Department. The final report must include the following:

- (1) Documentation of all results of the investigation, including analytical data and monitoring results.
- (2) Operational changes established at the operator's oil and gas wells in this Commonwealth.
- (3) Measures taken by the operator to repair any defects at any of the investigated oil and gas wells.

(i) Reports submitted in accordance with this section that contain an analysis of geological or engineering data shall be prepared and sealed by a geologist or engineer licensed in this Commonwealth.

From: Richard Fetzer [<mailto:Fetzer.Richard@epamail.epa.gov>]

Sent: Friday, March 23, 2012 2:30 PM

To: Brokenshire, Stephen

Cc: heston.gerald@epa.gov; Kelley Chase

Subject: PADEP State Drinking Water Standard

Steve,

We see in your web page that "there is no specific standard for methane gas in drinking water". We just wanted to make sure this is correct, since we are getting inquiries regarding a "state standard" from the press.

Please let me know.

Rich

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